

Remarks

Claims 1-20 are at issue. Claims 8-10 & 12 stand rejected under 35 USC 102(b) as being anticipated by Pidwerbetsky et al (6,084,530). Claims 1-7 and 15-20 stand rejected under 35 USC 103(a) as being unpatentable over Pidwerbetsky in view of Seal (6,396,438). Claim 13 stands rejected under 35 USC 103(a) as being unpatentable over Pidwerbetsky in view of Mish (6,025,784). Claim 14 stands rejected under 35 USC 103(a) as being unpatentable over Pidwerbetsky in view of Mish and further in view of Shaw (6,563,417).

General Comments

Pidwerbetsky is directed to a system using RFID tags. The tag (see FIG. 3) receives an information signal from the interrogator 103 (Fig. 2). The tag does a normal RF detection (see 301, 302, 303, etc) and then responds with its own information signal 306 that modulates a carrier 308 and is transmitted over antenna 301. The present application modulates a reflected signal as opposed to transmitting a new signal. Note that the modulating tag 16 (Fig. 2) has a plurality of conductive traces 42 that are connected by switches 44. Modulation of the reflected signal is achieved by changing the reflective properties of the tag 16 (See pages 5, 6, lines 23-29 & 1-2). Note that there is no detector or clock recovery. In fact the tag does not receive an information signal. These differences are clearly pointed out in the claims as will be explained below.

Claim 1 requires an information signal on a reflection of the output. Neither Pidwerbetsky or Seal show modulating a reflected signal¹. See FIG. 2 of the present application to see how the reflected signal is modulated. Claim 1 is allowable.

Claims 2, 4, 6 & 7 are allowable as being dependent upon an allowable base claim.

¹ Pidwerbetsky does use the phrase "backscatter modulator" or MBS but the discussion is clearly about modulating the signal 308 generated by the tag, not the reflected signal.

Claim 3 requires a periodic signal. See the explanation on page 7, lines 9-16 (FIG. 4) which clearly explains that the modulation of the reflected signal is a periodic signal since the tag does not know when it will be illuminated. The Examiner points to modulation schemes BPSK etc. This is not the information signal, this is just how the information signal is modulated. There is no discussion of a periodic signal in Pidwerbetsky, because this would not make sense in his case. The RFID tag receives an information signal from the interrogator and then responds. In the present application, the tag does not receive an information signal from the transmitter it just reflects the incident light wave. Claim 3 is allowable.

Claim 5 requires the signal is modulated by changing its polarization. The portion of Seal pointed to by the Examiner just sets the polarization, it does not change the polarization to encode information onto the signal. Clearly claim 5 is allowable over the prior art.

Claim 8 requires a reflected signal. Neither Pidwerbetsky or Seal show modulating a reflected signal¹. See FIG. 2 of the present application to see how the reflected signal is modulated. Claim 8 is allowable.

Claim 9 requires the reflected signal to be phase modulated. Phase modulation of the reflected signal is not shown in Pidwerbetsky or Seal. Claim 9 is allowable.

Claims 10, 11 & 12-14 are allowable as being dependent upon an allowable base claim.

Claim 15 requires a reflected signal. Neither Pidwerbetsky or Seal show modulating a reflected signal². See FIG. 2 of the present application to see how the reflected signal is modulated. Claim 15 is allowable.

Claims 16, 18 & 20 are allowable as being dependent upon an allowable base claim.

¹ Pidwerbetsky does use the phrase "backscatter modulator" or MBS but the discussion is clearly about modulating the signal 308 generated by the tag, not the reflected signal.

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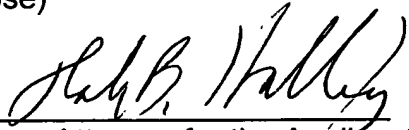
Claim 17 requires sending a tamper signal. The Examiner points to Seal element 1410. The only statement in Seal is that the tamper detector is a switch. It does not state that it sends a tamper signal. The switch probably turns off the transponder. This is not a tamper signal. Claim 17 is allowable.

Claims 19 requires a periodic signal. See the explanation on page 7, lines 9-16 (FIG. 4) which clearly explain that the modulation of the reflected signal is a periodic signal since the tag does not know when it will be illuminated. The Examiner points to modulation schemes BPSK etc. This is not the information signal, this is just how the information signal is modulated. There is no discussion of a periodic signal in Pidwerbetsky, because this would not make sense in his case. The RFID tag receives an information signal from the interrogator and then responds. In the present application, the tag does not receive an information signal from the transmitter it just reflects the incident light wave. Claim 19 is allowable.

Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

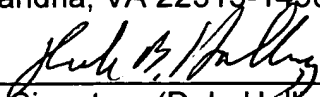
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By 
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